

Amendments To The Claims

1.(currently amended) An apparatus for estimating printer resources, said apparatus comprising:

a comparator configured and adapted to receive first and second values, said comparator further being adapted to compare said first value to said second value and to generate an output signal based on said comparison; wherein said first value represents a quantity of a printer resource needed to print a document and further wherein said second value represents an amount of said printer resource available at a printer; and,

a controller coupled to said comparator, said controller being configured and adapted to control said comparator and to generate a control signal based on said comparison; and

a converter coupled to said comparator and being coupled to and controlled by said controller, said converter being configured to receive said first and said second values, and said converter further being configured to convert said first and said second values into a common unit of measure.

2.(canceled)

3.(original) The apparatus of claim 1 wherein said control signal generated by said controller causes an indication signal to be generated and wherein said indication signal indicates that insufficient resources are available to print said document.

4.(original) The apparatus of claim 3 further comprising an indication signal generator, said indication signal generator being configured to receive said control signal from said controller and further being configured to generate said indication signal in response to said control signal.

5.(original) The apparatus of claim 1 wherein said control signal generated by said controller causes said document to be printed.

6.(original) The apparatus of claim 5 wherein said control signal generated by said controller is supplied by said controller to a print driver that responds to said control signal by sending a print command to said printer.

7.(currently amended) An apparatus for estimating printer resources, said apparatus comprising:

a comparator configured and adapted to receive first and second values, said comparator further being adapted to compare said first value to said second value and to generate an output signal based on said comparison, wherein said first value represents a quantity of a printer resource needed to print a document and said second value represents an amount of said printer resource available at a printer;

a controller coupled to said comparator, said controller being configured and adapted to control said comparator and to generate a first control signal based on said output signal and ~~The apparatus of claim 1 wherein said control signal comprises a first control signal, and wherein said controller is further configured and adapted to generate a second control signal for causing a printer to switch between a first mode of operation and a second mode of operation, said printer responding to a printer server while operating in said first mode and said printer responding only to a said printer driver residing on a computer different from said printer server while operating in said second mode.~~

8.(original) The apparatus of claim 1 wherein said apparatus is disposed in a computer.

9.(original) The apparatus of claim 1 wherein said apparatus is coupled to a computer.

10.(original) The apparatus of claim 1 wherein said printer resource comprises paper.

11.(original) The apparatus of claim 1 wherein said printer resource comprises toner.

12.(original) The apparatus of claim 1 wherein said printer resource comprises ink.

13.(currently amended) A computer system comprising:

a processor;

an apparatus operatively communicatably coupled to said processor, said processor computer system being configured to receive first and second values, convert said first and said second values into a common unit of measure, and compare said first value to said second value and being further configured to generate a control signal based on said comparison, said first value being associated with an amount of a first printer resource that is required to print a document and said second value being associated with an amount of said first printer resource that is available at a printer; and,

a print driver operatively communicatably coupled to said processor and to said apparatus, said print driver being capable of receiving and responding to said control signal.

14.(currently amended) The computer system of claim 13 wherein said print driver is operatively communicatably coupled to said printer and wherein said print driver responds to said control signal by causing said printer to print said document.

15.(original) The computer system of claim 14 wherein said print driver comprises a missile extension and wherein said missile extension communicates with a ping firmware disposed in said printer.

16.(original) The computer system of claim 13 wherein said print driver responds to said control signal by causing an indication signal to be generated and wherein said indication signal indicates that an insufficient amount of said first printer resource is available for printing said document.

17.(original) The computer system of claim 16 further comprising a monitor, wherein said indication signal generated by said print driver comprises a text message to be displayed on said monitor.

18.(currently amended) The computer system of claim 17 wherein said print driver is operatively communicatably coupled to said printer and wherein said apparatus is further adapted to cause said print driver to generate a command that causes said printer to switch from a first mode of operation to a second mode of operation and further wherein said apparatus causes said print driver to generate said command in response to a print job assurance request.

19.(original) The computer system of claim 18 wherein said first mode of operation causes said printer to respond to commands issued by a print server.

20.(original) The computer system of claim 18 wherein said second mode of operation causes said printer to stop responding to commands issued by a print server and to begin responding to commands issued by said print driver.

21.(currently amended) The computer system of claim 13 wherein said print driver is operatively communicatably coupled to said printer, said apparatus further being configured to cause said print driver to request that said printer transmit said second value.

22.(currently amended) The computer system of claim 13 wherein said print driver is operatively communicatably coupled to said printer and wherein said second value is supplied to said apparatus by said print driver.

23-27.(canceled)

28.(currently amended) A computer program product comprising a computer usable medium having computer readable program code embodied in said medium that when executed causes a computer to:

compare a first value to a second value, said first value being an amount of a printer resource required to print a document, and said second value being an amount of said printer resource available at a printer;

convert said first and said second value to a common unit of measure before said first and second values are compared; and,

generate a control signal based on said comparison.

29.(canceled)

30.(original) The computer program product of claim 28 further comprising computer readable program code embodied in said medium that when executed causes said computer to:

supply said control signal to a print driver, said control signal causing said print driver to generate a message indicating whether said printer resource available at said printer is sufficient to print said document.

31.(original) The computer program product of claim 28 further comprising computer readable program code embodied in said medium that when executed causes said computer to:

generate a request and supply said request to a print driver, wherein said request causes said print driver to obtain said first value from a processor and to obtain said second value from said printer.

32.(original) The computer program product of claim 28 further comprising computer readable program code embodied in said medium that when executed causes said computer to:

supply said control signal to a print driver, said control signal causing said printer driver to cause said printer to print said document.

33.(currently amended) A computer program product comprising a computer usable medium having computer readable program code embodied in said medium that when executed causes a computer to:

compare a first value to a second value, said first value being an amount of a printer resource required to print a document, and said second value being an amount of said printer resource available at a printer;

generate a control signal based on said comparison; and

~~The computer program product of claim 28 further comprising computer readable program code embodied in said medium that when executed causes said computer to:~~

cause said printer to switch from a first mode of operation to a second mode of operation when a print job assurance feature is selected, wherein said printer responds to a printer server while operating in said first mode and said printer responding only to a printer driver residing on a computer different from said printer server while operating in said second mode~~a first computer while operating in said first mode of operation and wherein said printer responds to a second computer while operating in said second mode of operation.~~

34.(canceled)

35.(original) The computer program product of claim 33 further comprising computer readable program code embodied in said medium that when executed causes said computer to:

cause said printer to switch from said second mode of operation to said first mode of operation after said document has been printed by said printer.

36.(currently amended) A method for estimating printer resources, said method comprising:

comparing a first value to a second value, said first value being an amount of a printer resource required to print a document and said second value being an amount of said printer resource available at said printer;

converting said first and second values to a common unit of measure before said step of comparing;

causing said document to be printed if said second value is greater than said first value; and,

generating an indication signal if said first value is greater than said second value, said indication signal alerting a user that said amount of said printer resource available at said printer is insufficient to print said document.

37.(canceled)

38.(original) The method of claim 36 further comprising the steps of:

requesting said first value from a first processor; and,

~~requesting said second value from said printer.~~

39.(original) The method of claim 36 further comprising the steps of:

causing said printer to switch from a first mode of operation to a second mode of operation in response to a print job assurance request, wherein said printer responds to a print server when operating in said first mode and wherein said printer responds to said first processor when operating in said second mode; and,

causing said printer to switch from said second mode to said first mode after said document has been printed.

40.(new) A method for estimating printer resources, comprising:

causing a printer to switch from a client server mode in which said printer performs tasks supplied by a print server to a direct printing mode in which said printer performs only tasks supplied directly by a computer different from said print server;

comparing a first value to a second value, said first value representing an amount of a resource of said printer required to print a document and said second value representing an amount of said printer resource available at said printer;

causing said document to be printed if said second value is greater than said first value; and

generating an indication signal if said first value is greater than said second value, said indication signal alerting a user that said amount of said printer resource available at said printer is insufficient to print said document.

41.(new) The method of claim 40, further comprising causing the printer to switch from the direct printing mode back to the client server mode.

42.(new) A computer program product comprising a computer usable medium having computer readable program code embodied in said medium that when executed causes a computer to:

cause a printer to switch from a client server mode in which said printer performs tasks supplied by a print server to a direct printing mode in which said printer performs only tasks supplied directly by a computer different from said print server;

compare a first value to a second value, said first value representing an amount of a resource of said printer required to print a document and said second value representing an amount of said printer resource available at said printer;

cause said document to be printed if said second value is greater than said first value; and

generate an indication signal if said first value is greater than said second value, said indication signal alerting a user that said amount of said printer resource available at said printer is insufficient to print said document.

43.(new) The computer program product of claim 42 further comprising computer readable program code embodied in said medium that when executed causes said computer to cause the printer to switch from the direct printing mode back to the client server mode.